

REMARKS

With this submission, independent claims 1, 12, 13, and 17 are amended. Claims 1-5 and 12-23 remain pending. Reconsideration and review of the pending claims are respectfully requested.

Claims 1-5 and 12-23 stand rejected under 35 U.S.C. 103(a) as being anticipated by U.S. Patent No. 5,724,259 to Seymour et al. (Seymour) in view of U.S. Patent No. 5,646,716 to Nagashima. Independent claims 1 and 12 have been amended to define a camera assembly or lighting assembly wherein uniform illumination is provided of a portion of the paper substrate using a single light source, wherein light is then reflected from that portion of the substrate to a camera. Method claims 13 and 17 are amended to included similar limitations.

Applicant believes that neither Seymour nor Nagashima describes or suggests such an assembly including this limitation. In particular, Seymour describes a camera assembly including two light sources, each light source having an associated reflector for directing light to the web, as illustrated in Fig. 3(a) and described at Col. 6, lines 3-7. The light sources in the camera assembly of Seymour are point sources of light, such as bulbs. The reflectors in the camera assembly of Seymour are circular Vromanoid reflectors, each surrounding a bulb and having a characteristic such that equal angles of light emitted from the strobe translates into equal distances on the web (see Col. 6, lines 3-34 and Figs. 3(a)-(c)). In the camera assembly of Seymour, the two light sources and associated reflectors are positioned symmetrically with respect to a plane that is perpendicular to the paper substrate in order to provide uniform illumination to the web. Seymour at Col. 7, line 1 suggests that illumination could be provided by a single strobe light or a plurality of strobe lights. Although Seymour does suggest the use of a single strobe light, Seymour does not disclose or suggest an arrangement or number of reflectors that will provide uniform illumination of a portion of the paper substrate using that single strobe light, and Applicant does not believe that the arrangement of Nagashima can be combined with the teachings of Seymour to provide an operable camera assembly.

Nagashima describes an image recording apparatus including a single light source and two reflectors including reflectors 18b and 18a. The light source is a linear light source for illuminating a linear area of a transmission type original. In other words, the light from the light source of Nagashima passes through the transmission type original to be detected on the other

side of the original, and light is not reflected from the original to a camera on the same side of the original as the light source.

Without the benefit of hindsight, there is no suggestion or motivation how or why one would select the linear light source and two associated reflectors of Nagashima and combine them with the arrangement of a light source and camera of Seymour to obtain an operable assembly as defined by Applicant's claims. The arrangement of the two reflectors for directing light in two distinct paths to the substrate from the linear light source, as shown in Nagashima, only makes sense when light is transmitted through the substrate, and not reflected from it. In other words, the combination of Nagashima and Seymour, as proposed by the Examiner, does not result in an operable device wherein light is reflected from substrate to a camera. The arrangement of Nagashima, i.e., a linear light source and associated reflectors, does not permit a camera to be positioned on the same side of the substrate as the light source for receiving light reflected from an illuminated substrate. Further, Seymour only makes sense when each reflector has its own associated light source. A circular Vromanoid reflector as described in Seymour can only operate with a single point source of light.

Therefore, independent claims 1, 12, 13, and 17 define over the references cited by the Examiner, and are allowable. Claims 2-5 depend from claim 1, claims 21-23 depend from claim 12, claims 14-16 depend from claim 13, and claims 18-20 depend from claim 17, and are allowable for at least the reasons that apply to the independent claims.

In view of the foregoing, entry of this response and allowance of the pending claims are respectfully requested. The undersigned is available for telephone consultation at any time.

Respectfully submitted,



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